REMARKS

By the above actions, claims 1, 2 and 15-17 have been amended and claim 3 has been cancelled. In view of these actions and the following remarks, reconsideration of this application is requested.

With regard to the unity of invention requirement made by the Examiner, applicant affirms the election of process claims 1-14. However, it is submitted that the requirement made by the Examiner is inconsistent with the rules governing unity of invention as set forth in 37 CFR 1.475(b)(4) which sets forth that:

> (b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:
>
> ****
>
> (4) A process and an apparatus or means specifically designed for carrying out the said process;

Therefore, since claims 1-14 are directed to a process and claims 15-22 are directed to an apparatus that is specifically designed for carrying out the process of claims 1-14, as can be seen from a comparison of amended claims 1 and 15, amended claim 15 reciting apparatus elements for performing each of the steps of amended claim 1, under the rule quoted above, claims 1 and 15 should be considered as having unity of invention. Accordingly, rejoinder of the apparatus claims is requested.

The rejection of claim 1 based upon the combination of the Rock and Cisar et al. references has been rendered moot by the incorporation of now-cancelled claim 3 into amended claim 1. Thus, initial attention will be given to the rejection of claim 3 based upon the combination of the Rock and Cisar et al. references with the Bisaka et al. and Eaton et al. references. This rejection is inappropriate as it relates to the claims as now presented for the following reasons.

As stated on pages 2 and 3 of the present application, paragraphs [0007] and [0009], changes in the dimensions of the fuel cell stack in many cases indicate the joining of the cells has been achieved. It is therefore very advantageous to use these changes of the dimensions as a basis for a closed loop control of the compression force during the joining process. That is, "the force

causing compression of the fuel cell stack can be increased until tightness of the fuel cell stack can be assumed with high probability" and this compression is determinable by "the change of the dimensions of the assembled fuel cell stack which has been detected by way of at least one distance sensor [that] is included in the controlling of at least one force component."

Rock discloses a process that is, in key respects, the opposite of the present invention in that Rock determines that amount/distance that he wishes to compress his fuel stack and then applies a force designed to produce that amount of compression. In direct contrast, the present invention does not seek to achieve a particular degree of reduction in the stack height but rather uses dimensional change as a means to determine that, in conjunction with the heat applied, the cells have been joined together. That is, the assembled fuel cell stack is heated until a glass paste or glass solder melts and the fuel cell stack is compressed under a mechanical load so that the seals melt and seal. Rock does not attempt to join his fuels cells by the compression that he applies (as recognized by the Examiner, no heat is applied during Rock's compression process) and instead, Rock joins his fuel cells into a stack using top and bottom end plates, side plates and optionally also spacer plates.

Cisar et al., like the present invention relates to bonding (joining) of fuel cells, but does not do so using the present applicant's technique for determining when joining has been achieved. Cisar et al. is thus the type of process/apparatus that the present invention is intended as an improvement over. Given the fundamental differences between the process of Rock and those of Cisar et al. and the present invention, it is hard to imagine one of ordinary skill thinking to combine the teachings of Rock with those of Cisar et al., let alone in a way that would lead to the present invention.

As for Eaton, a person of ordinary skill in the art would not consider the Eaton reference at all since it is directed to ***de***stacking of fluid transport layers (FTLs) from a stack of FTLs provided in a corresponding magazine. While the FTLs are intended to produce a fuel cell, the forming of a fuel cell stack itself is not the subject of the Eaton patent application publication. Eaton's distance sensor 60 is only used to determine the height of the FTL stack provided in the magazine for the purpose of computing the vertical travel needed to effect engagement of an adhesive tape 65 with the surface of the uppermost FTL in the FTL stack. It is simply not understandable how such a teaching could have any relevance to Rock and Cisar et al., let alone lead to a modification thereof that would result in the present invention.

Bisaka also is not directed to a joining process during the production of a stack, but rather is directed to keeping a fuel cell stack tight during its operation. Thus, here again, nothing in the disclosure of Bisaka is either relevant to the present invention or capable of leading to it together with the diverse disclosures of the other three references.

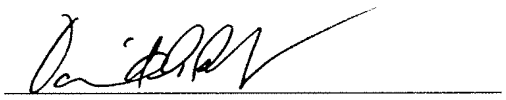
The Barton et al, Herrmann and Debe et al. patent have merely been cited with respect to features of various dependent claims and nothing in there disclosures can make up for the total lack of obviousness in the Examiner's proposed combination of the Rock, Cisar et al., Eaton and Bisaka references as explained above.

Accordingly, reconsideration and withdrawal of the outstanding rejections are in order and are now requested.

The reference that has been cited but not applied by the Examiner has been taken into consideration. However, since this reference was not found to be relevant enough by the Examiner to apply against the original claims, no detailed comments thereon are believed to be warranted at this time.

Therefore, in the absence of new and more relevant prior art being discovered, this application should now be in condition for allowance and action to that effect is requested. However, while it is believed that this application should now be in condition for allowance, in the event that any issues should remain, or any new issues arise, after consideration of this response which could be addressed through discussions with the undersigned, then the Examiner is requested to contact the undersigned by telephone for the purpose of resolving any such issue and thereby facilitating prompt approval of this application.

Respectfully submitted,



David S. Safran
Registration No. 27,997

Customer No. 25570
Roberts Mlotkowski Safran & Cole, P.C.
P.O. Box 10064
McLean, VA 22102
Direct Telephone: (703) 584-3273

DSS:kmm